

Taught or Suggested": "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." MPEP §2143.03 at 2100-139 (Rev. 3, Aug. 2005).

In particular, each of the independent claims 1 and 8 require entries to be written *at an end of each access cycle* that identify respective transmitted packets having been transmitted *during said each access cycle*. Claim 1 specifies:

first storing in a table, *at an end of each access cycle* by a retransmission manager, entries identifying respective packets wherein each entry identifies a corresponding one of said packets, *said packets having been transmitted onto an InfiniBand™ network according to InfiniBand™ protocol and during said each access cycle* according to an InfiniBand™-based service protocol requiring an acknowledgement message receipt within a prescribed time interval following transmission of the corresponding packet

Claim 8 specifies:

a retransmission manager configured for storing in the table, *at an end of each access cycle*, the entries identifying the respective packets *having been transmitted during said each access cycle*

As illustrated on page 2, line 23 of the specification, the "access cycle" is "defined as a prescribed number of clock cycles." In addition, the specification describes that the retransmission manager stores the entries at the end of each access cycle (i.e., after every "n" clock cycles) to enable the memory size to be reduced.

The retransmission manager 24 is configured for storing the entries 26 into the retransmission table 20 during each access cycle (i.e., after every "n" clock cycles). As described in detail below with respect to Figures 3A and 3B, the retransmission manager 24 writes the entries for the packet transmitted during the access cycle by accessing the retransmission table after every "n" clock cycles, reducing the number of access attempts to the retransmission table 20. In particular, the restriction of writing the entries at prescribed access cycles *enables the memory size to be reduced*, since any attempt to write an entry into the table 20 each clock cycle would result in a large memory size if the retransmission time "t" was a large number. *Hence, the size of the table 20 can be*

reduced based on limiting the access to a prescribed number of clock cycles for each access attempt.

(Page 10, lines 17-25).

The specification also describes that the retransmission manager monitors the packets transmitted during the access cycle, and adds the entries into the retransmission table at the end of the access cycle:

The method begins in step 100, wherein the access cycle starts by the retransmission manager 24 monitoring in step 102 the packets transmitted by the MAC 74 onto the network, and counting the number of transmitted packets using the counter 22. The retransmission manager 24 continues monitoring the packets having been transmitted until determining in step 104 that a prescribed number (n) of clock cycles have passed, indicating the access cycle is complete. Once the prescribed number of clock cycles have passed, the retransmission manager 24 stores in step 106 the entries 26 into the retransmission table 20 identifying the transmitted packets, based on the queue pair number field 28 and the packet sequence number field 30.

(Page 10, lines 27-34).

In addition, the claimed “prescribed time interval” is distinct from the claimed access cycle, since the claimed “prescribed time interval” is based on the claimed *service protocol*. Claim 1 specifies “said packets having been transmitted ... according to an InfiniBand™-based service protocol requiring an acknowledgement message receipt within a prescribed time interval following transmission of the corresponding packet”. In addition, the entries that have a determined absence of the reset stored acknowledgement waiting bit upon expiration of the prescribed time interval are transferred to the transmit queue.

Hence, the retransmission manager stores entries at the end of each access cycle (described in the specification as upon expiration of “n” clock cycles), enabling the size of the table to be reduced.

Hence, the storage of entries *at an end of each access cycle* limits the access attempts for storing the entries in the table, enabling the table size to be reduced. These and other features are neither disclosed nor suggested in the applied prior art.

Kemp et al. provides no disclosure or suggestion whatsoever of the claimed storage of entries *at an end of each access cycle*. The Examiner's reliance on column 9, lines 19-21 for the alleged teaching of "at an end of each access cycle storing in a table entries identifying respective packets" is ill-founded, because the cited portion does not provide the required teaching of the claimed storage of entries at an end of each access cycle:

The procedure by which GRE module 320 transmits a packet (e.g., line 502 in FIG. 5) is shown in FIG. 6. *The procedure involves GRE module 320 creating a pending packet entry 422 in retransmit queue 420 and appending the data to the queue (line 601).* GRE module 320 then builds a header for the packet to be transmitted (line 602, see FIG. 7).

(Col. 9, lines 17-22).

Hence, the cited portion provides no disclosure or suggestion whatsoever of any restriction in creating a pending packet entry 422 in the retransmit queue, and certainly does not provide any suggestion for the claimed storage of an entry *at an end of an access cycle*, as claimed.

Moreover, Kemp et al. provides numerous references that demonstrate there is no restriction as to when an entry can be added to the retransmit queue 420 (see, e.g., col. 6 line 66 to col. 7, line 3: "On the outbound data path, data packets received from PPP module 310 pass directly to a retransmit queue 420 if they can be immediately transmitted according to the state of the GRE communication session").

Hence, Kemp et al. fails to provide any disclosure or suggestion of storing entries "at an end of each access cycle", as claimed. This failure is readily apparent by the problem expressed in Kemp et al. of needing to limit the size of the retransmit queue 420 using a "congestion window size" (see, e.g., col. 7, lines 24-39). As described above, however, the claimed storing of entries "at an end of each access cycle" enables the memory size to be *reduced*.

Dearth et al. provides no disclosure or suggestion of storing entries "at an end of each access cycle", as claimed.

Hence, the rejection fails to establish a prima facie case of obviousness because the hypothetical combination neither discloses nor suggests storing entries "at an end of each access cycle", as claimed. For these and other reasons, the §103 rejection should be withdrawn.

The indication of allowable subject matter in claims 2-6 and 9-10 is acknowledged with appreciation. It is believed these claims are allowable in view of the foregoing.

In view of the above, it is believed this application is in condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-391, and please credit any excess fees to such deposit account.

Respectfully submitted,

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